

Please add the following new claims:

13. (New) A protective layer that is relatively permeable for CO₂ and is relatively impermeable for SO₂, comprising:
a gas-permeable carrier made of a material that is resistant to sulfuric acid media including SO₂ and SO₃; and
a surface that can be exposed to a gas and is provided with an oxidizing agent having an oxidation potential that is sufficient to oxidize SO₂.
14. (New) The protective layer according to claim 13, wherein:
the oxidizing agent is a nonvolatile oxidizing agent.
15. (New) The protective layer according to claim 13, wherein:
the oxidizing agent includes potassium permanganate.
16. (New) The protective layer according to claim 13, wherein:
the gas-permeable carrier includes aluminum oxide.
17. (New) The protective layer according to claim 13, wherein:
the gas-permeable carrier includes at least one tube having an inside wall provided with the oxidizing agent.
18. (New) The protective layer according to claim 17, wherein:
the gas-permeable carrier includes a block having a plurality of axially parallel cylindrical tubes aligned side by side.
19. (New) The protective layer according to claim 18, wherein:
the cylindrical tubes correspond to round cylinders.